

12305

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
10 August 2000 (10.08.2000)

PCT

(10) International Publication Number  
**WO 00/46403 A3**

- (51) International Patent Classification<sup>7</sup>: **C12Q 1/70** (74) Agents: GREENE, Jamie, L. et al.; Jones & Askew, LLP, 2400 Monarch Tower, 3424 Peachtree Road, N.E., Atlanta, GA 30326 (US).
- (21) International Application Number: **PCT/US00/02498**
- (22) International Filing Date: 1 February 2000 (01.02.2000) (81) Designated States (*national*): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (25) Filing Language: **English**
- (26) Publication Language: **English**
- (30) Priority Data:  
60/118,357 3 February 1999 (03.02.1999) US (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
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- Published:  
— *With international search report.*
- (72) Inventors; and (88) Date of publication of the international search report:  
21 December 2000
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- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: **METHODS AND REAGENTS FOR MOLECULAR DETECTION OF HIV-1 GROUPS M, N AND O**

(57) Abstract: Reagents and assays for detecting HIV-1 groups M and O and optionally HIV-1 group N and SIVcpz are provided. The reagents are nucleic acid primers for the hybridization to, amplification and subsequent detection of HIV-1 groups M, N and O and SIVcpz in a biological sample. The primers are oligonucleotides that selectively hybridize to the highly conserved regions of the *env* and *pol* regions of HIV-1. The assays employ the primers for HIV-1 nucleic acid amplification using amplification techniques such as reverse transcription and the polymerase chain reaction. The assays are useful for diagnosing an HIV-1 group M, HIV-1 group N, or an HIV-1 group O infection in a patient. Due to the high sensitivity of the assays, small concentrations of HIV in a biological sample can be detected, thereby allowing diagnosis at an early stage of infection. The assays are also useful for detecting HIV-1 contamination in a biological fluid such as blood. The assays are qualitative or quantitative and are therefore useful for viral load determinations of HIV-1 groups M, N or O in a patient undergoing treatment for HIV-1 infection. Viral load determinations can be used to monitor the progress of the treatment regimen or the development of drug resistance and can be used to predict disease progression.

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